

**Model 47**  
**Medium Power Fixed Coaxial Attenuators**

**dc to 18.0 GHz**  
**50 Watts**

**Type N Connectors**



**Features**

- /// Designed to meet environmental requirements of MIL-A-3933.
- /// Low Intermodulation option available.
- /// Rugged injection molded connector dielectric.

**Specifications**

**NOMINAL IMPEDANCE:** 50 Ω

**FREQUENCY RANGE:** dc to 18.0 GHz

**MAXIMUM DEVIATION OVER FREQUENCY:**

Nominal ATTN (dB)	47	47 LIM	
		dc-8 GHz	8-18 GHz
3, 6	± 0.75	---	---
10	± 0.50	± 0.75	+1.5/-0.5
20	± 0.75	± 0.75	+1.5/-0.5
30, 40	± 1.00	± 0.75	+1.5/-0.5

**MAXIMUM SWR:**

Frequency (GHz)	3, 6 dB	10, 20, 30, 40 dB
dc - 8	1.25	1.20
8 -12.4	1.35	1.25
12.4 - 18	1.45	1.35

**3rd ORDER INTERMODULATION (47-XX-XX-LIM ONLY):** Reflected Levels (IM3), -100 & Through Levels (IM3), -110 dBc with two input signals @ 869 MHz and 891 MHz with average carrier power levels of +43 dBm each. Option only available 10, 20, 30, 40 dB.

**POWER RATING (mounted horizontally):** 50 watts average (unidirectional) to 25°C ambient temperature, derated linearly to 5 watts @ 125°C. Note: 3 dB model can handle 100 Watts average (unidirectional). 1 kilowatt peak (5 μsec pulse width; 2.5% duty cycle). Maximum power rating into output port is 10 Watts average.

**POWER COEFFICIENT:** <0.0003 dB/dB/watt

**TEMPERATURE COEFFICIENT:** <0.0004 dB/dB/°C

**TEMPERATURE RANGE:** -55°C to 125°C

**CALIBRATION:** Insertion loss test data supplied at 0.05, 4.0, 8.0, 12.0, and 18.0 GHz. Other test data can be provided at additional cost.

**CONNECTORS:** Type N connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors.

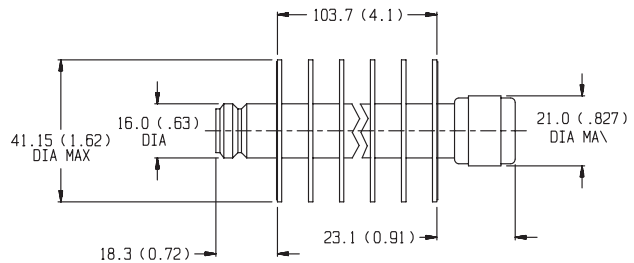
3.5mm Connectors - mate nondestructively with SMA per MIL-C-39012, 2.92mm and other 3.5mm connectors.

Options	Description	Options	Description
1	3.5mm Female	3	Type N Female
2	3.5mm Male	4	Type N Male

**CONSTRUCTION:** Black, finned aluminum body, stainless steel connectors with gold plated beryllium copper contacts.

**WEIGHT:** 175 g (6 oz.) maximum

**PHYSICAL DIMENSIONS:**

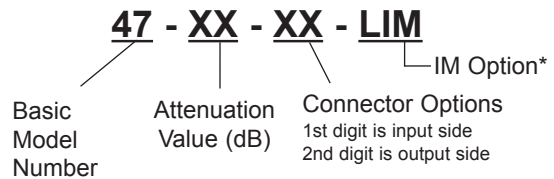


Connector	DIM A	Connector	DIM A
N Male	24.1 (0.95)	3.5mm Female	14.0 (0.55)
N Female	19.0 (0.75)	3.5mm Male	13.2 (0.52)

NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.

**MODEL NUMBER DESCRIPTION:**

Example:



\* Add -LIM for Low Intermodulation option. Option only available in 10, 20, 30 and 40 dB and is not available through Express.